DSCR

DLA's Lead Center For Aviation Support

ENVIRONMENTAL RESTORATION PROGRAM

Summary of Recent Groundwater Monitoring at DSCR

Restoration Advisory Board (RAB) Meeting

11 July 2005

Background

Most Recent Monitoring Completed in 2004

- **Zone 1 - Operable Unit 8**
- **Zone 2 – Operable Unit 6**
- **Zone 3 – Operable Unit 7**
- **Conceptual Site Model Wells**

Groundwater Monitoring Objectives

Zone 1

- Monitor Extent of Chlorinated Volatile Organic Compounds
- Determine if Concentrations are “Rebounding”
- Monitor Natural Attenuation Parameters

Zones 2 and 3

- Monitor Extent of Chlorinated Volatile Organic Compounds
- Monitor Natural Attenuation Parameters

Conceptual Site Model

- Identify Groundwater Conditions and Geochemistry Outside the Operable Units

Groundwater Monitoring Wells

Zone 1 – Operable Unit 8

- **36 Wells in Upper Water Bearing Unit**
- **3 Wells in Lower Water Bearing Unit**

Zone 2 – Operable Unit 6

- **41 Wells in Upper Water Bearing Unit**
- **44 Wells in Lower Water Bearing Unit**
- **4 Wells in Bedrock Water Bearing Unit**

Groundwater Monitoring Wells

Zone 3 – Operable Unit 7

- **34 Wells in Upper Water Bearing Unit**
- **12 Wells in Lower Water Bearing Unit**
- **1 Well in Bedrock Water Bearing Unit**

Conceptual Site Model

- **12 Wells in Upper Water Bearing Unit**
- **17 Wells in Lower Water Bearing Unit**
- **7 Wells in Bedrock Water Bearing Unit**

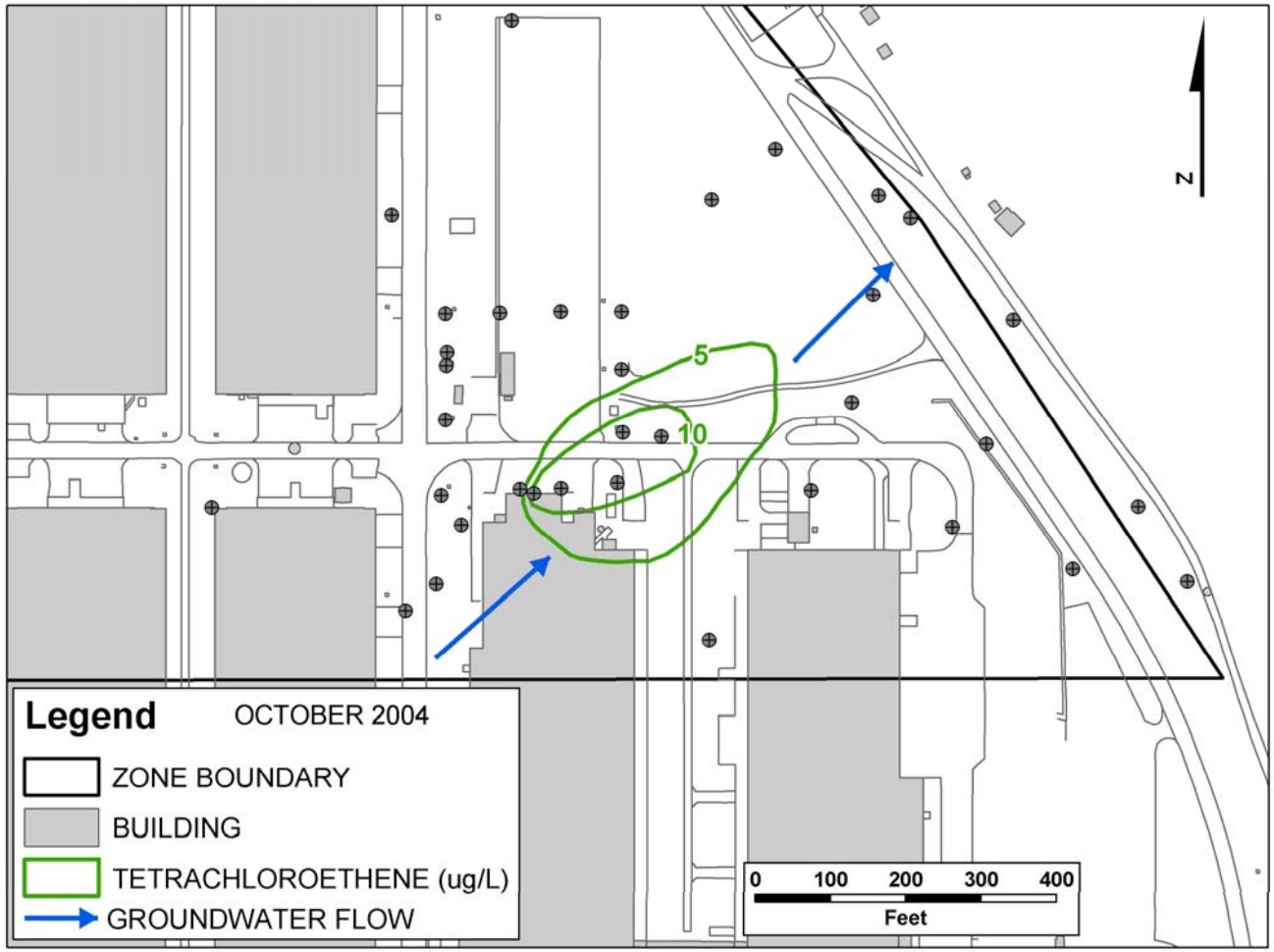
Groundwater Analyses

- **Volatile Organic Compounds**
- **Polycyclic Aromatic Hydrocarbons**
- **Metals**
- **Natural Attenuation Parameters**
- **Organic Carbon**
- **Inorganic Parameters**
- **Field Parameters**

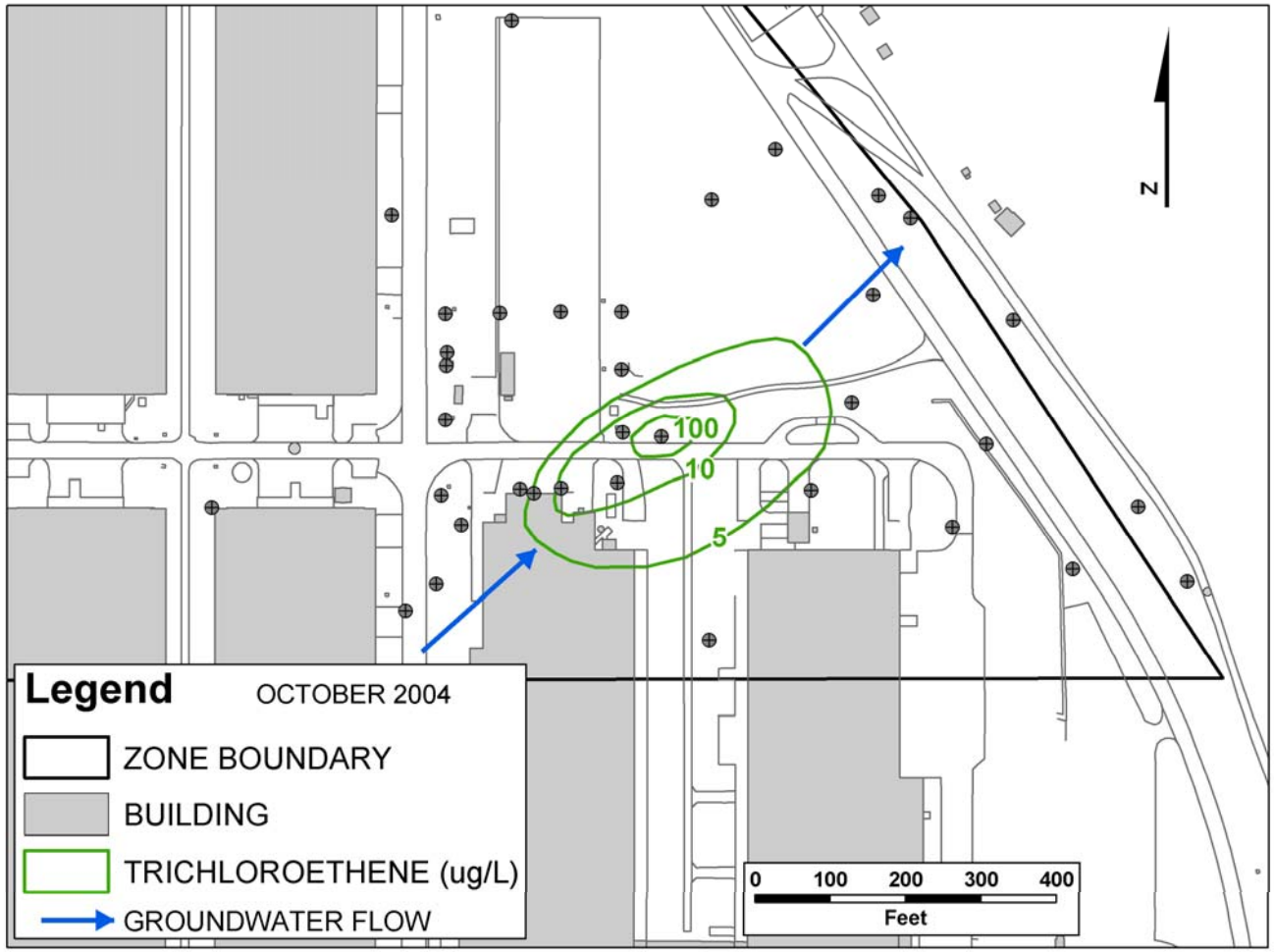
Groundwater Sampling Method

- **Record Water Level**
- **Pump Water at a Rate of Less Than 1 Gallon per Minute**
- **Record Field Parameters During Pumping**
- **Groundwater Sample is Collected when Field Parameters are Stable**

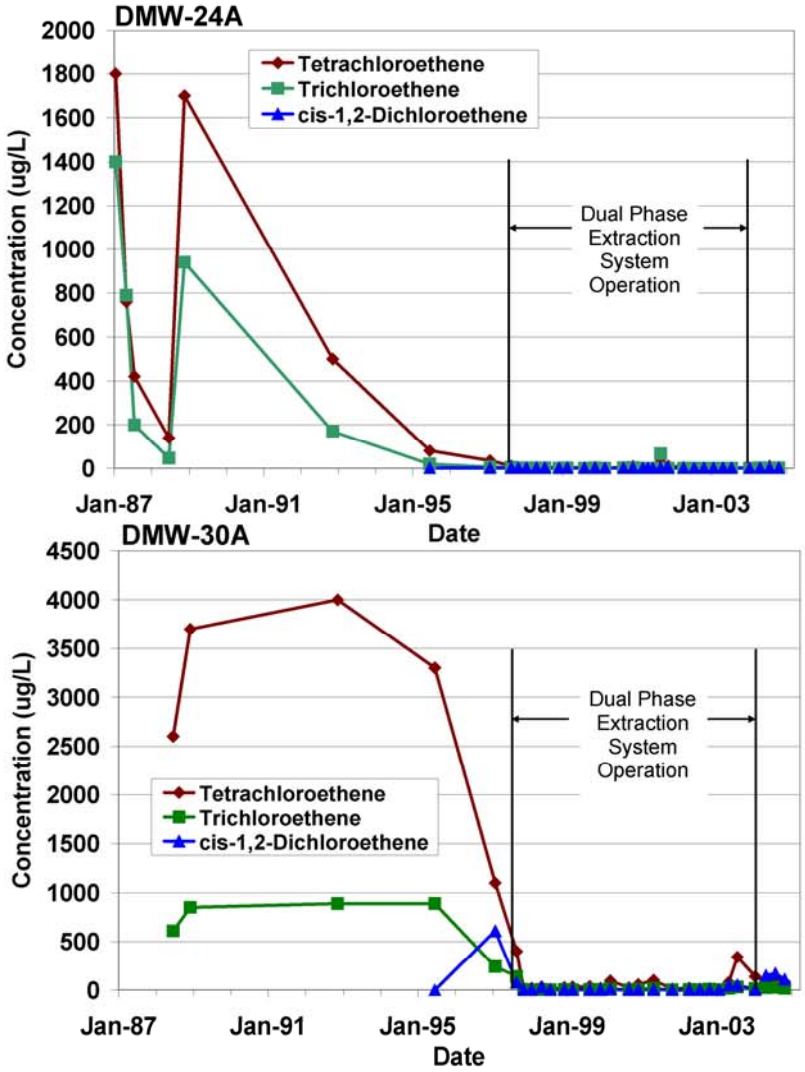
Zone 1 – Operable Unit 8
Tetrachloroethene
Upper Water Bearing Unit

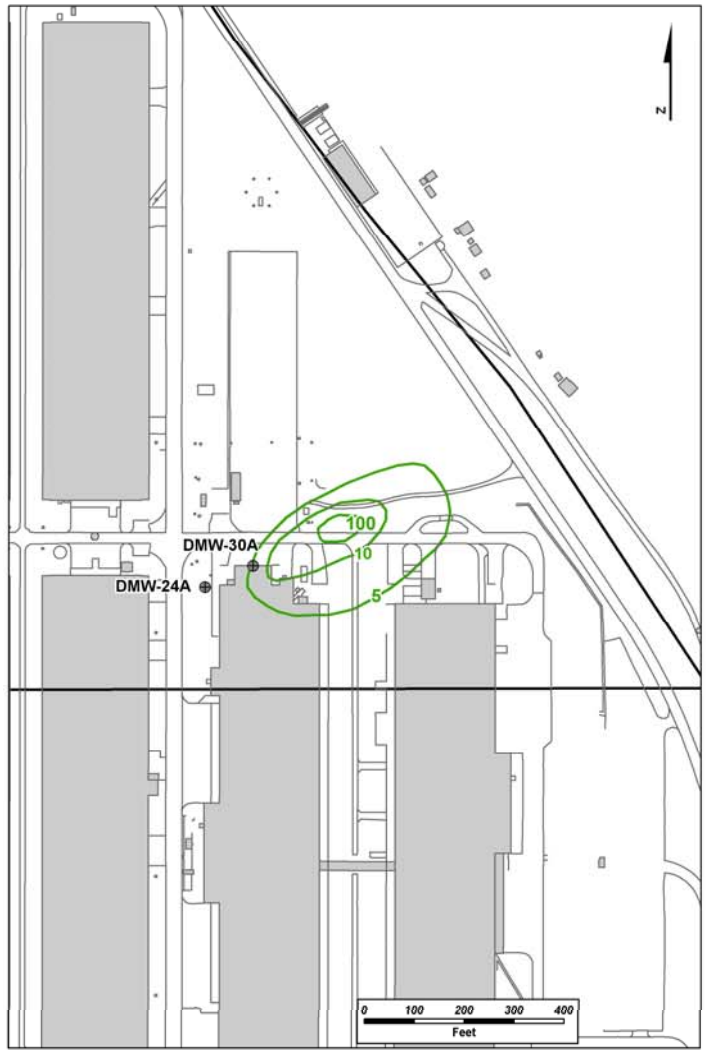


Zone 1 – Operable Unit 8
Trichloroethene
Upper Water Bearing Unit

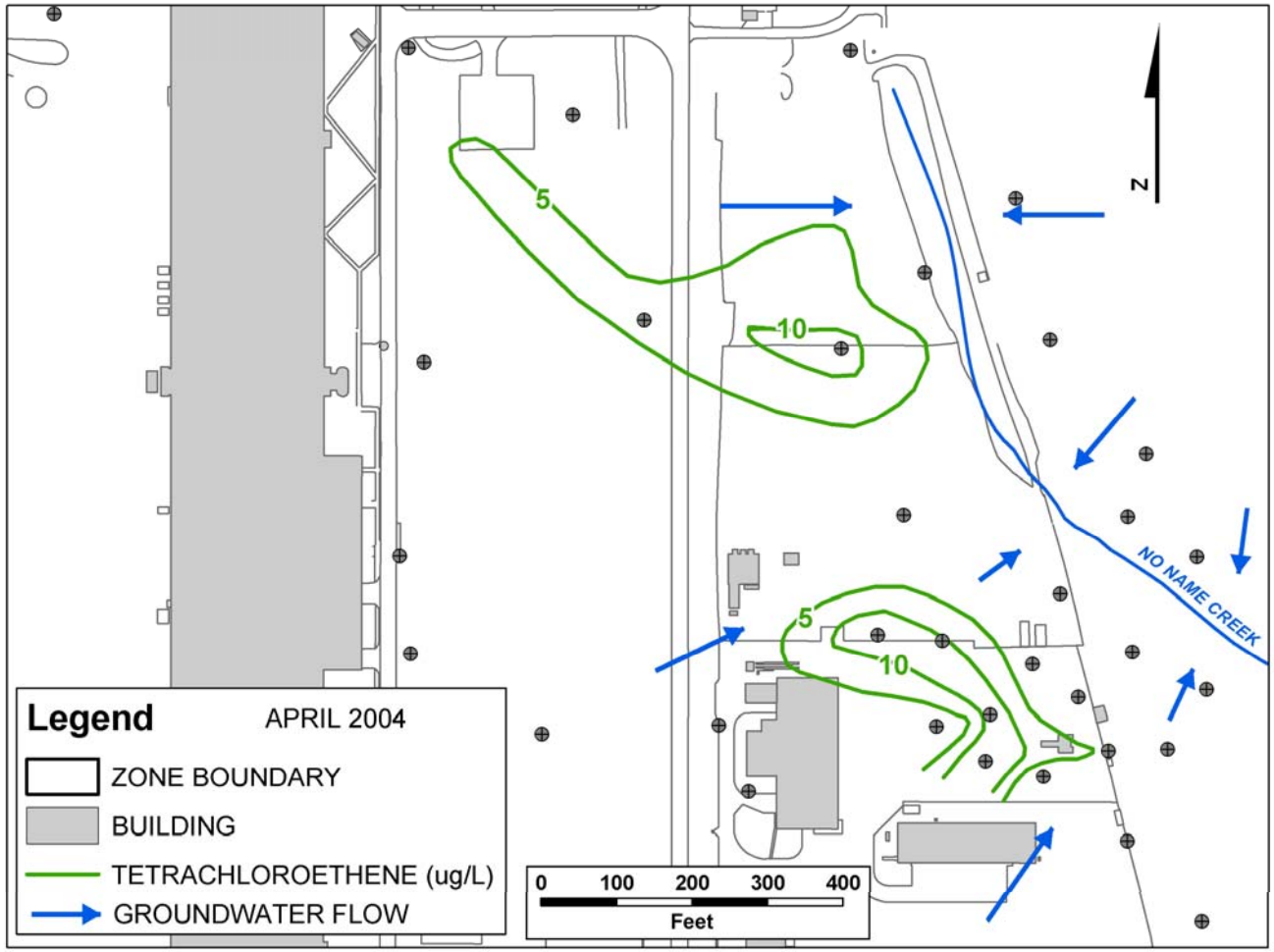


Zone 1 – Operable Unit 8
Concentration Trends
Upper Water Bearing Unit

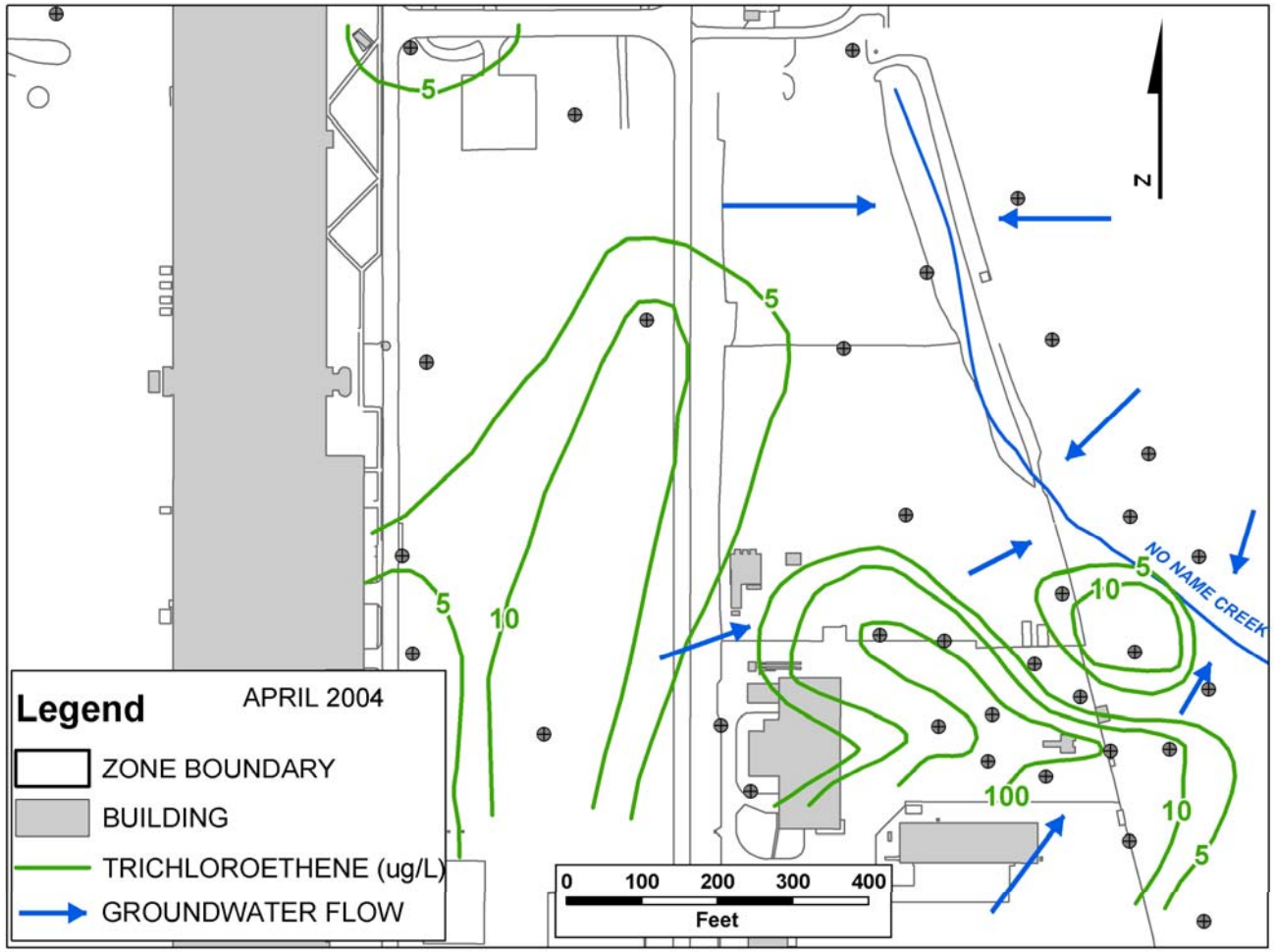




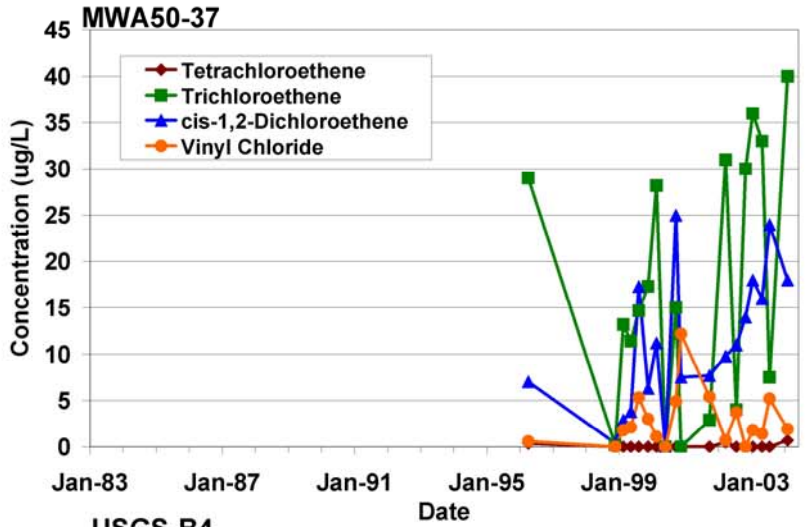
Zone 2 – Operable Unit 6
Tetrachloroethene
Upper Water Bearing Unit

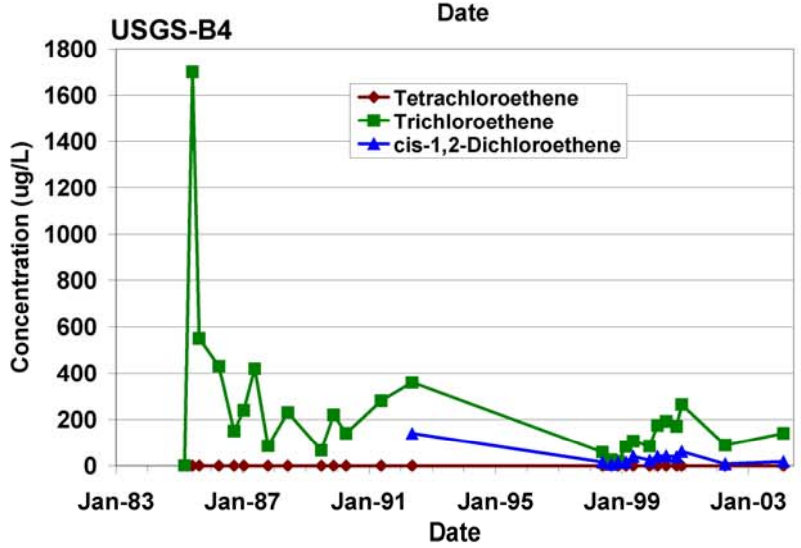


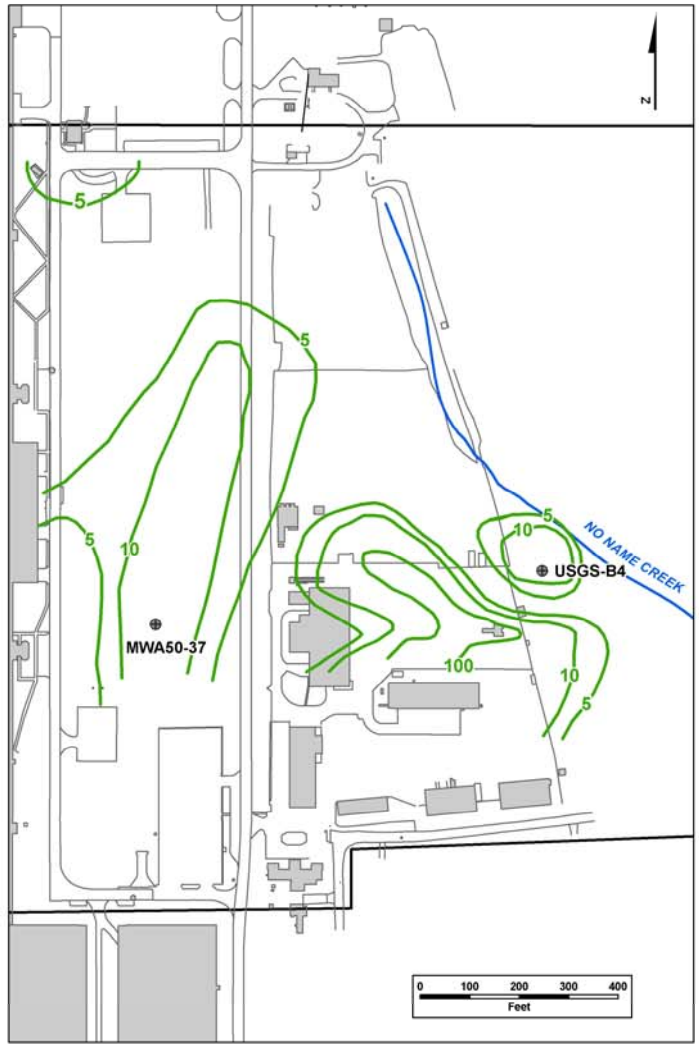
Zone 2 – Operable Unit 6
Trichloroethene
Upper Water Bearing Unit



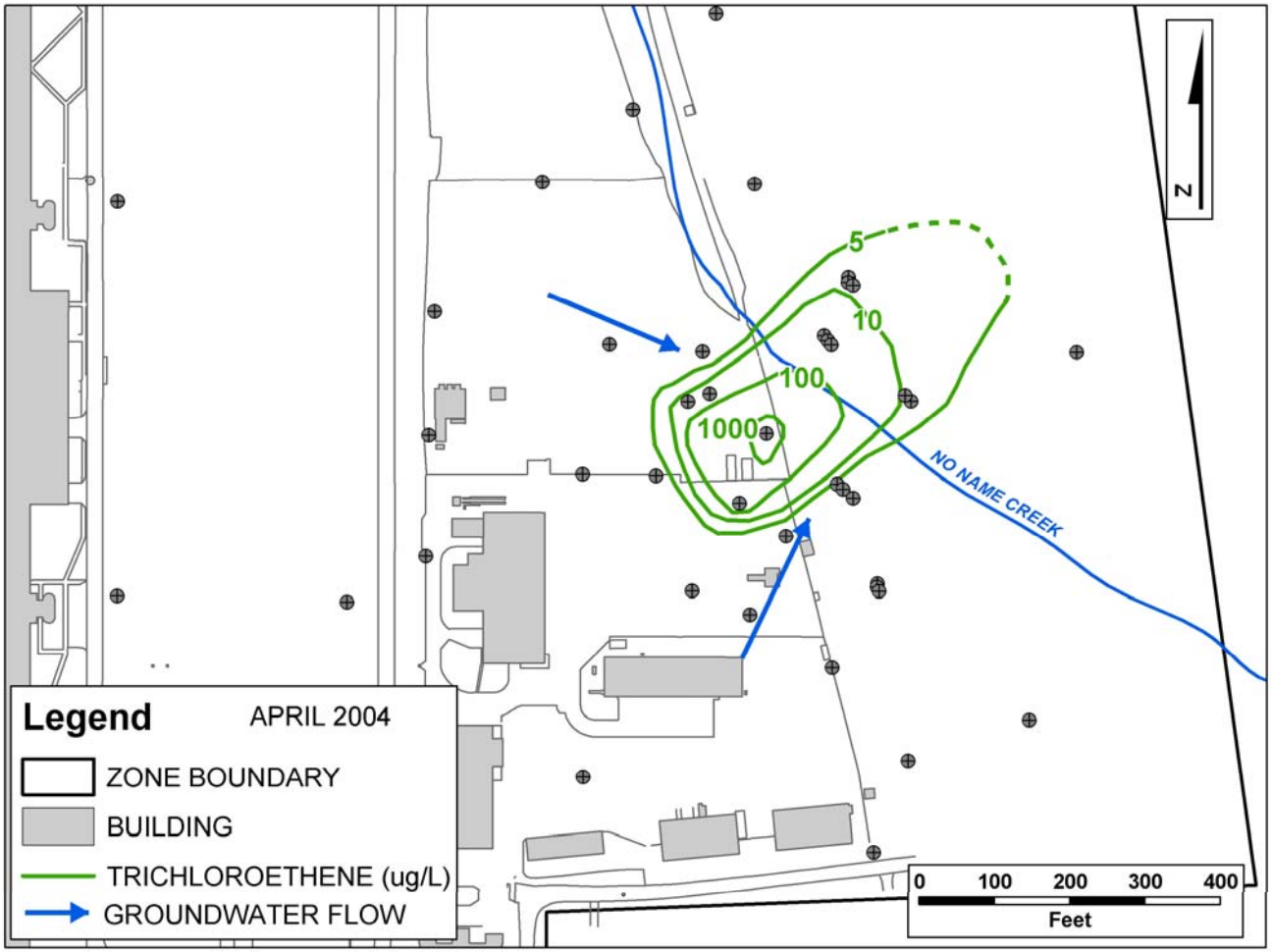
Zone 2 – Operable Unit 6
Concentration Trends
Upper Water Bearing Unit



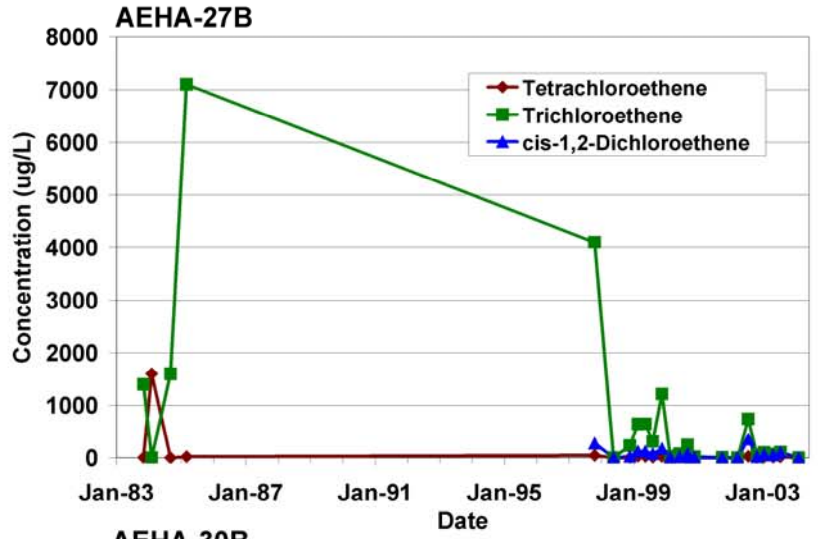


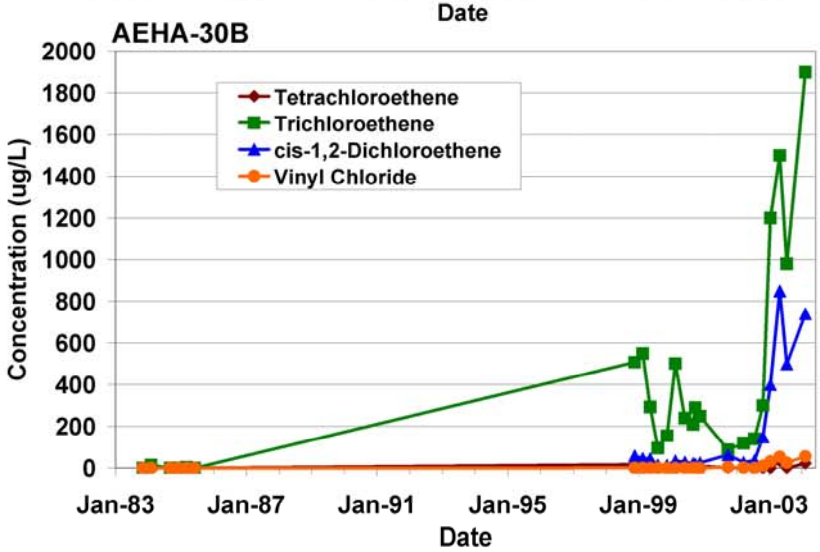


Zone 2 – Operable Unit 6
Trichloroethene
Lower Water Bearing Unit

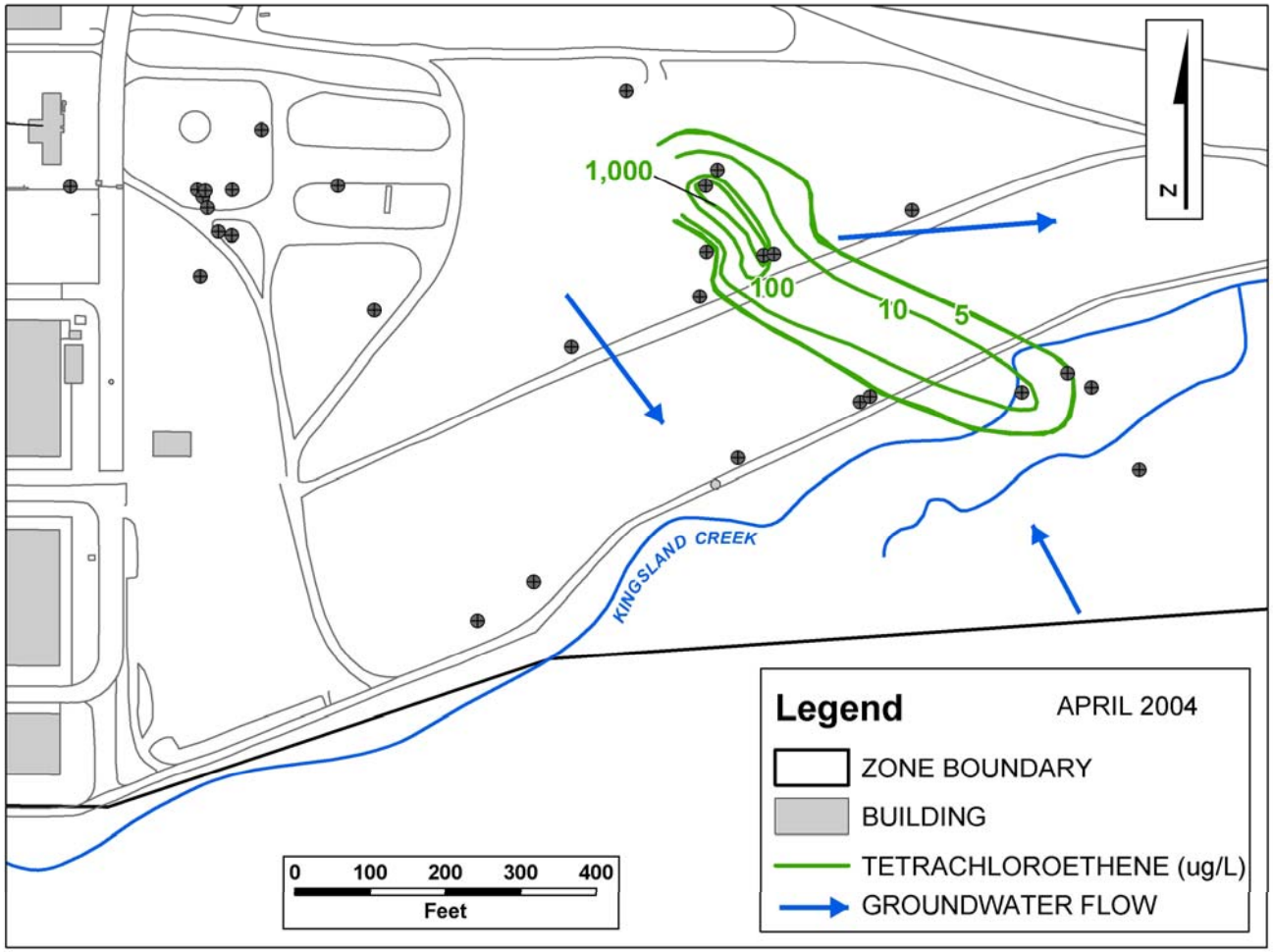


Zone 2 – Operable Unit 6
Concentration Trends
Lower Water Bearing Unit

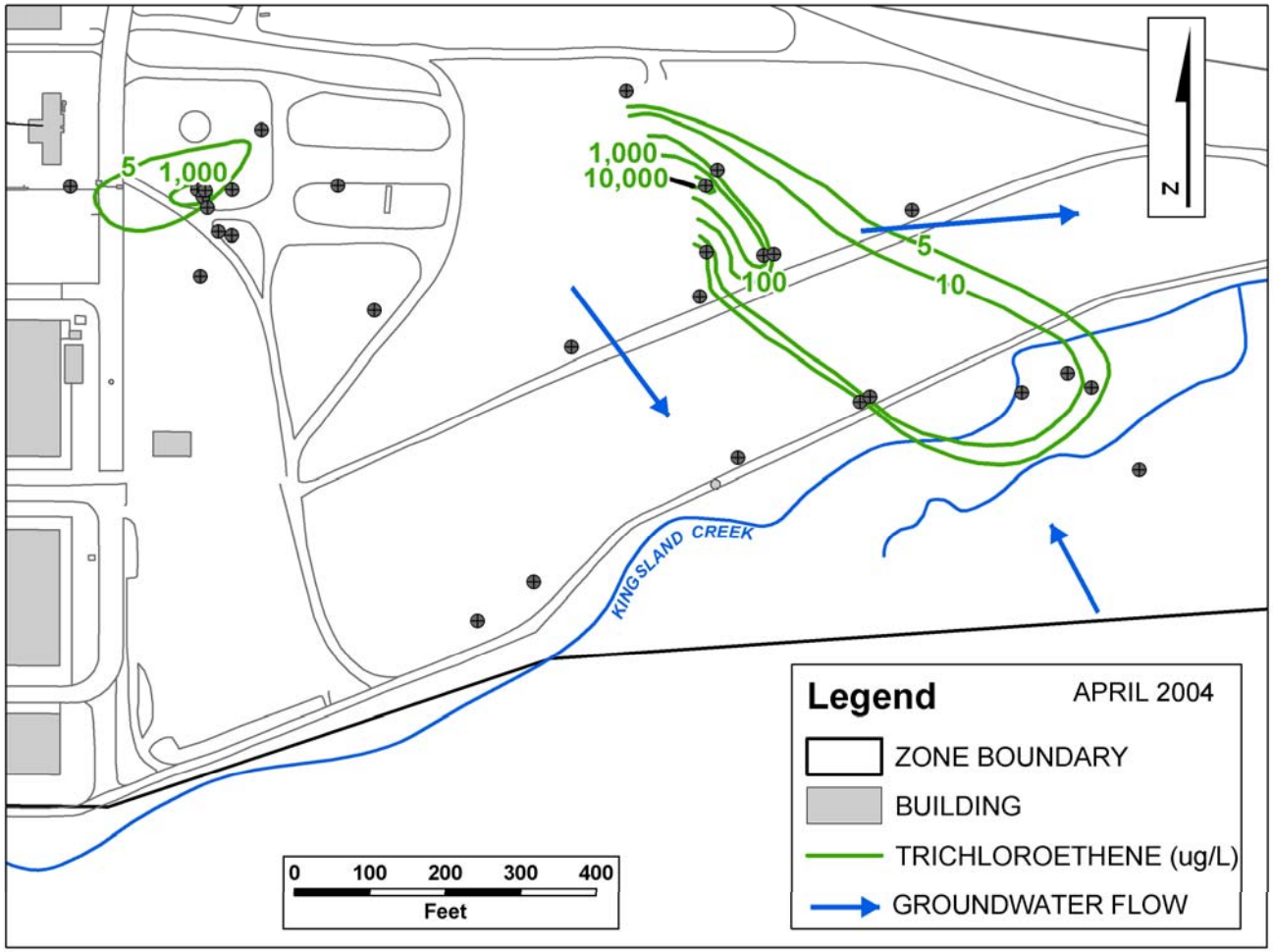




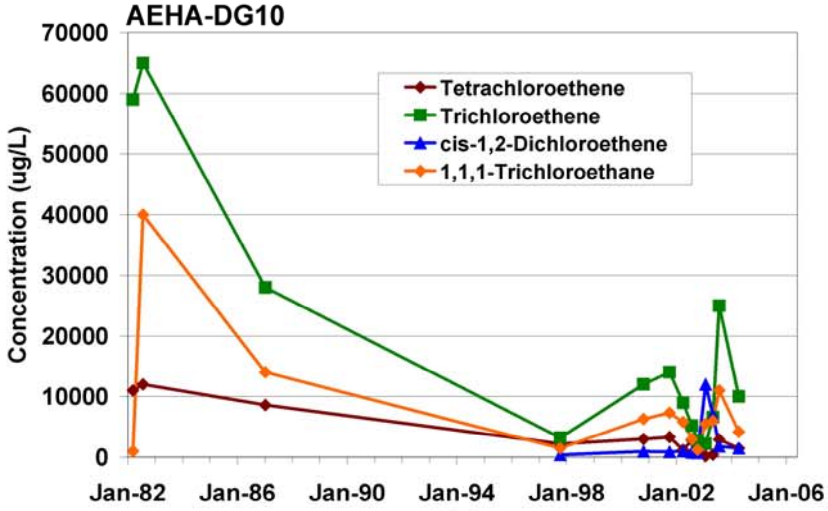
Zone 3 – Operable Unit 7
Tetrachloroethene
Upper Water Bearing Unit

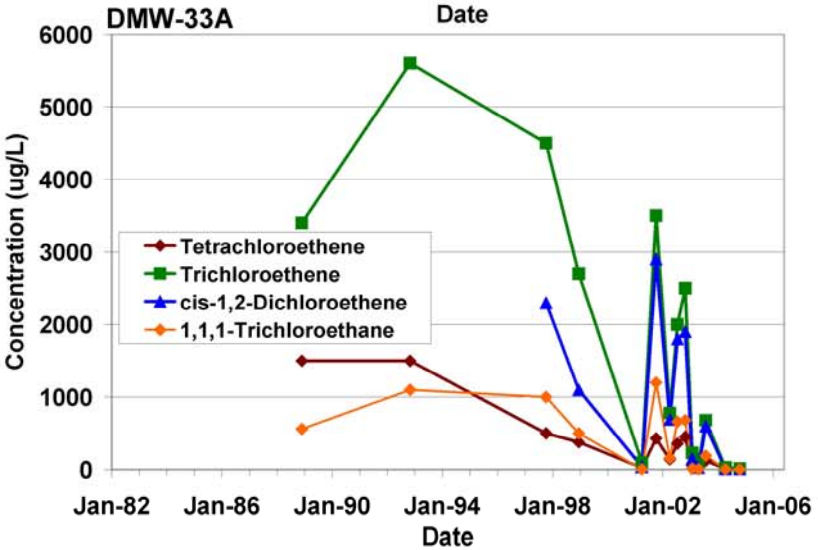


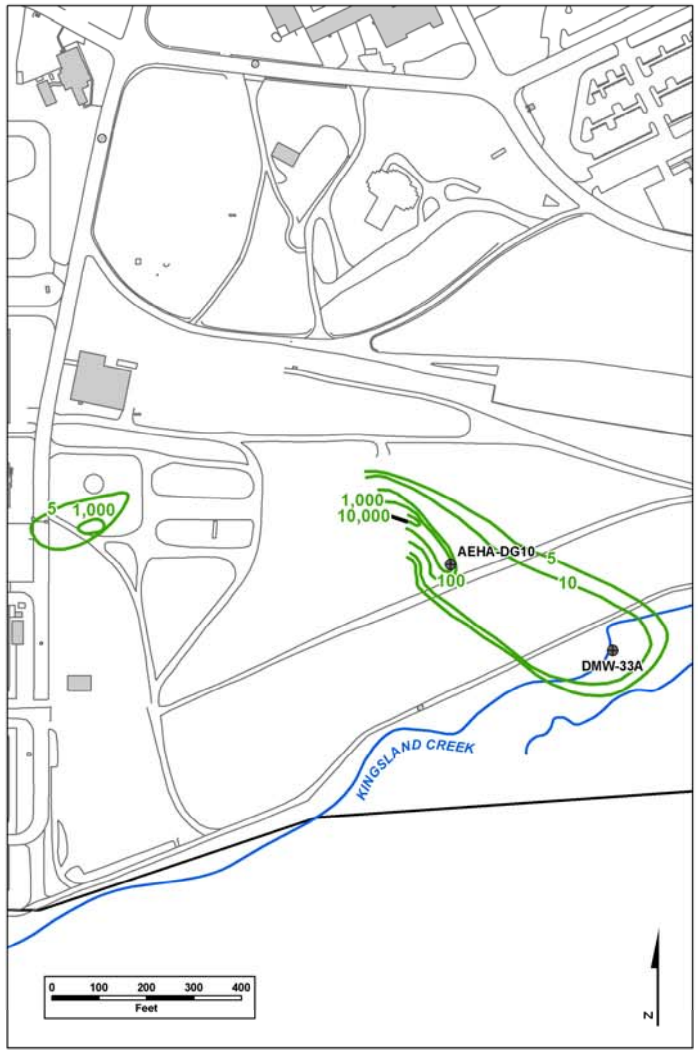
Zone 3 – Operable Unit 7
Trichloroethene
Upper Water Bearing Unit



Zone 3 – Operable Unit 7
Concentration Trends
Upper Water Bearing Unit







Path Forward

- **Biannual Monitoring**
  - **1st Event Begins this Week (11 July 2005)**
  - **Volatile Organic Compounds, Polycyclic Aromatic Hydrocarbons, Metals, Organic Carbon, Natural Attenuation/Inorganic/Field Parameters**
- **Evaluate Sampling Results**
  - **Map Extent of Chlorinated Volatile Organic Compounds**
  - **Plot Concentration Trends of Chlorinated Volatile Organic Compounds**
  - **Identify Effectiveness of Natural Attenuation Processes**

Thank You

Thank You for Your Time and Attention

We Will Gladly Answer Your Questions